G-E Campus News

"HITHER, MOUNTAIN!"

IT'S been centuries since Mahomet resigned himself to go to the mountain because the mountain wouldn't come to him. If Mahomet were living today, he wouldn't have to go to the mountain, that is, if he were at Shasta Dam—the second largest concrete dam in the world—now under construction in California.

There the world's longest conveyor belt is moving mountains—5,700,000 cubic yards of concrete and 10,400,000 tons of sand and gravel—from the processing plant to storage piles near the dam site, a distance of 9.6 miles.

Driving the conveyor belt are General Electric motors and control, thoroughly checked and tested before going on the job by young student engineers taking the G-E Test Course. J. A. Jackson, Va. Poly. Inst., '00, and R. F. Emerson, Yale, '06, had charge of the engineering at Schenectady, and A. W. Moody, U. of Calif., '36, followed engineering on the job. All three are ex-Testmen.

SUPER STREAMLINING

IN this modern age practically every means of transportation is streamlined—automobiles, airplanes, trains, and even baby carriages. The closest approach to perfect streamlining, however, is probably not found in any one of the foregoing but in a General Electric steam turbine, where nozzles must be designed to direct steam at the buckets at just the right angle.

G-E engineers have streamlined turbine nozzles to a point where they absorb less than two per cent of the velocity energy of steam traveling through turbines. Working with models, engineers about 20 years ago found they could feel low-pressure spots in an air stream blown through nozzle sections. Literally and figuratively they were "putting the finger" on streamlining deficiencies. Now, in a special laboratory, air is forced through model nozzles at a terrific speed (more than 700 miles an hour) while mechanical "fingers" feel for points of eddy or friction loss, and an automatic machine records the results.

These "streamline" tests, conducted by young student engineers "on Test" under the direction of experienced engineers, give records of inestimable value in the constant search for new ways to build more efficient turbines.

SIX VOICES

PEOPLE who have qualms about broadcasting probably would have passed right out if they had been in the shoes of George A. Mead, N. Y. State Commander of the American Legion, when he broadcasted recently from General Electric's television studios at Schenectady, N. Y.

For the first time in history a voice was carried over every practical means of voice communication. Mead's talk, in addition to going out on the ultra-short-wave band accompanying the picture on television, was simultaneously carried by WGY on long-wave radio, WGEO on short-wave, W2XOY on frequency modulation, and by light beam and ordinary telephone. In all, six distinct frequency bands carried his words to the four corners of the earth.

Directors of this unusual broadcast were John Sheehan, Union, '25, manager of G-E short-wave broadcasting, and J. G. T. Gilmour, Union, '27, program manager of G.E.'s television station, W2XB.

GENERAL ELECTRIC

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